

Abstract of the Disclosure

A semiconductor device includes a substrate of a first conductivity type, an insulating layer formed on at least a portion of the substrate, and an epitaxial layer of a second conductivity type formed on at least a portion of the insulating layer. First and second source/drain regions of the second conductivity type are formed in the epitaxial layer proximate an upper surface of the epitaxial layer, the first and second source/drain regions being spaced laterally from one another. A gate is formed above the epitaxial layer proximate the upper surface of the epitaxial layer and at least partially between the first and second source/drain regions. The device further includes a first source/drain contact formed through the epitaxial layer and insulating layer, the first source/drain contact configured so as to be in direct electrical connection with the substrate, the first source/drain region and the epitaxial layer, and a second source/drain contact formed through the epitaxial layer, the second source/drain contact configured so as to be in direct electrical connection with the second source/drain region.